

Nuclear Division News



A Newspaper for Employees of the Nuclear Division, Union Carbide Corporation

Vol. 8, No. 4/February 17, 1977

question box

If you have questions on company policy, write the Editor, Nuclear Division News (or telephone your question in, either to the editor, or to your plant contact). Space limitations may require some editing, but pertinent subject matter will not be omitted. Your name will not be used, and you will be given a personal answer if you so desire.

School closings

QUESTION: When schools are let out because of inclement weather, could not this information be given over the public address system in our plants? This happened recently to me, and since both my wife and I work, we were distressed to hear that our child did not know where to go.

ANSWER: Nuclear Division employees in Oak Ridge and at Paducah live in many different counties and their children attend scores of city and county school systems. Information concerning action being taken by each of these would be difficult to obtain. We do not think it would be practical to attempt to make announcements concerning school closings over the public address system.

We would suggest that parents make arrangements ahead of time with their children concerning action to be taken under these circumstances. Perhaps arrangements could be made with a friend or neighbor to care for the children if an unexpected early school closing occurs. If this is not possible, the child or the teacher could be instructed to call either the mother or father at such times.

Christmas parties too adult?

QUESTION: It was my impression that Union Carbide's Oak Ridge Christmas parties were strictly for small children. Why is 80 percent or more of the entertainment for adults?

ANSWER: All of the Oak Ridge Christmas party acts this year were local talent ones. Animal acts and cartoons were discontinued in response to a recommendation from the task force that studied comments from the attitude survey on the recreation program. The task force concluded, and we agree, that children see these things all of the time on TV at home.

Others felt that this year's program was a good one for children. Nevertheless, your comments and those from others are welcomed. Although we cannot please everyone, we want to please as many employees as possible.

Rest room facilities

QUESTION: Why are the women's restrooms at ORNL so much better equipped for personal hygiene and sanitation than the ones at the Y-12 installation?

(Please see page 8)

Satchler named co-recipient of Bonner prize in physics

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G. Raymond Satchler, Oak Ridge National Laboratory physicist, has been selected as a co-recipient of the American Physical Society's Tom W. Bonner Prize in Nuclear Physics for 1977.

The award, for contributions to nuclear-reaction physics and its application to the understanding of nuclear structure, will be shared by Satchler and Stuart T. Butler of the University of Sydney, Australia.

Presentation of the \$1,000 prize and citation is to take place in April at the American Physical Society's annual spring meeting in Washington, D.C.

Corporate fellow

Satchler is considered a world authority on the theoretical interpretation of nuclear reactions. In September, 1976, he was named a corporate research fellow by Union Carbide Corporation.

In addition to important contributions to the physical understanding of nuclear reaction processes, he is well known for his collaboration with experimentalists in interpreting the results of experiments and encouraging new experiments to provide better tests of theory.

Satchler was one of the first nuclear theorists to implement the much more refined and detailed treatment of nuclear reactions made possible by the use of computers. Computer codes developed by him and his colleagues are now standard tools throughout the world for the analysis of nuclear reactions.

Cited for discovery

In announcing the selection of Satchler and Butler for the Bonner Prize, the American Physical Society said the two would be cited "for their discovery that direct nuclear reactions can be used to determine angular momenta of discrete nuclear states and for their systematic exploitation of this discovery permitting the determination of spins, parities, and quantitative properties of nuclear wave functions."

Satchler holds three degrees from Oxford University, where he received the doctorate in 1955. After teaching and research at Oxford and the University of Michigan, he became a member of the ORNL Physics Division in 1959.

His research interests have centered on the theory of direct and compound nuclear reactions and the application of shell and collective models to problems in nuclear structure.



G. Raymond Satchler

'Energy Conditions in the South' subject of report

The 14-state Southern region, with less than 29 percent of the U.S. population, is responsible for 73 percent of the nation's energy production.

This dominant position relative to other regions is due principally to the concentration in the South of natural gas and crude oil production, in which two states—Texas and Louisiana—lead the nation.

Not only does the South produce a large percentage of the nation's energy, but the region also uses 12 percent more on a per capita basis than the national average—35 percent of the U.S. total.

The findings are contained in a new Oak Ridge National Laboratory (ORNL) study, "Energy Conditions in the South," prepared by Patricia L. Rice of the Regional and Urban Studies Section in the Laboratory's Energy Division.

The 333-page report (ORNL/TM-5568) contains a state-by-state analysis both of primary energy inputs—from natural gas, crude oil, coal, and hydropower—as well as energy outputs, in the form of petroleum products from refineries and gas processing plants and electric-power generation.

Also analyzed is the region's energy consumption including statistics on residential, commercial, industrial, utility and transportation uses.

The resulting energy profile is intended primarily for the use of plan-

(Please see page 8)

In this issue...

If there ever was a "winter of our discontent," this one has to be it. But while we think of our own winter woes, it also occurs to us that some people have to get out and do something about it. An article on page 2 describes some of the activities around the four plants as maintenance people try to "dig out" for our safety.



Other features:

- Y-12 promotions page 3
- Bloodmobile visit page 4
- Sykes promoted page 5
- Engineers' Week page 5
- Dr. Lincoln page 7

Maintenance people fight recent "woes of winter"



Y-12 sidewalks get cleared

Neither rain, nor sleet, nor blinding snow has shut the plant doors of the Nuclear Division, thanks to the unceasing snow removal efforts of the Plant and Equipment (P&E) and Maintenance Divisions.

The frosty entrance of the Winter of '77 has made it necessary for much time, money and manpower to be spent for snow and ice removal—not to mention the cleanup process afterwards.

"At ORNL, alone, \$30,000 and 1,917 work hours have been spent to date on snow and ice control and cleanup," says Hobart H. "Hobe" Haymond, department head in Field Transportation and Support Services at ORNL's P&E Division. "Over \$3,500 of that figure was for 17,200 pounds of de-icer and 200 tons of rock chips, both of which are already on reorder."

Equipment involved in snow and ice removal includes: high lift trucks, dump trucks, chip trucks (dump trucks with chutes channeling rock into a revolving blade which scatters gravel on the road), garden tractors with blade and broom attachments, road graders, Hustler lawn mowers with push blade attachments and old-fashioned brooms and shovels.

"No place to put it!"

When icy weather hits, parking lots



Shady spots never melt fast enough

are a special problem because walk ways and lane dividers prevent the full use of larger clearing equipment. As Haymond puts it: "In the roads, you can push the snow to one side with snow plows. But in parking lots, there's no place to put it!"

High lifts are used to scoop and shovel the snow into dump trucks, which, in turn, must haul the snow off.

Another problem in clearing parking lots is that they are heavily used from 8 a.m. to 4:30 p.m. Therefore, crews must work overtime, from 4:30 until midnight, to clear plant car lots.

Summer "snow planning"

Planning for the ice season begins during the summer months. The Maintenance Divisions stock up on de-icer and rock chips, taking advantage of cheaper off-season prices. "When bad weather hits, rock and de-icer prices go sky-high, and they're practically impossible to get," says Haymond.

Other pre-planning includes the organizing of a "call-in crew." This advance list saves valuable time. This crew is formed in the summer from workers who volunteer to be "on call" during the winter months.

The shift supervisor at each plant must maintain a constant weather watch to decide when road conditions are becoming hazardous. When the weather warrants, the supervisors often make calls at 3 a.m. in order to have a four- to seven-member crew out clearing roads by 4 a.m.

Even with a four-hour headstart, all roads and parking lots are not always clear when the 8 a.m. shift arrives. With snow accumulation, workers must start the whole process over again at 4:30 p.m.

Another example of pre-planning for snow is a "priority list" composed in the fall. This list ranks in order the areas to be cleared, based on the amount of traffic and potential hazards to Nuclear Division employees. Given first priority, for instance, are plant access roads, sidewalks and parking lots, followed by roads in and around the plant areas.

"Good fairies"

Much hard work is performed by the "good fairies" of the night crews



Icy steps provide treacherous footing

in making the plant grounds safe for employees. Even on mornings when it doesn't snow, workers must attend to the north sides of buildings. Nearly every morning in January, they've had to de-ice the walks and de-fringe the buildings of icicles.

Y-12 hard hit

The season between fall of '76 and spring of '77 has required an expenditure of approximately \$40,000 in labor and \$7,000 in materials by the Y-12 Plant. Streets and sidewalks were cleared of ice and snow by use of ice-melting chemicals and mechanized snow brooms and plows. In some cases it was necessary to spread gravel on the streets to provide traction for vehicles. Cleanup after the snow and ice has been delayed because of the short intervals of decent weather between snows.

The harsh winter has also taken its toll in other abnormal maintenance requirements. There have been 16 breaks in the underground water pipeline system.

The final toll in cost of this once-in-a-century kind of winter is yet to be tallied.

ORGDP

A formal snow removal procedure, including the assignments of salaried

personnel, number and description of hourly employees required and equipment availability, has been formulated and is being used this year.

The pre-determined routes and assignments have helped expedite the snow and ice removal for the approximate 12-14 miles of roadway and the nine individual parking lots at ORGDP.

Salt is being used for the first time in bulk quantity to remove snow and ice from the main roads and security perimeter roads as necessary. Gravel and sand are still used as back-up material in isolated areas.

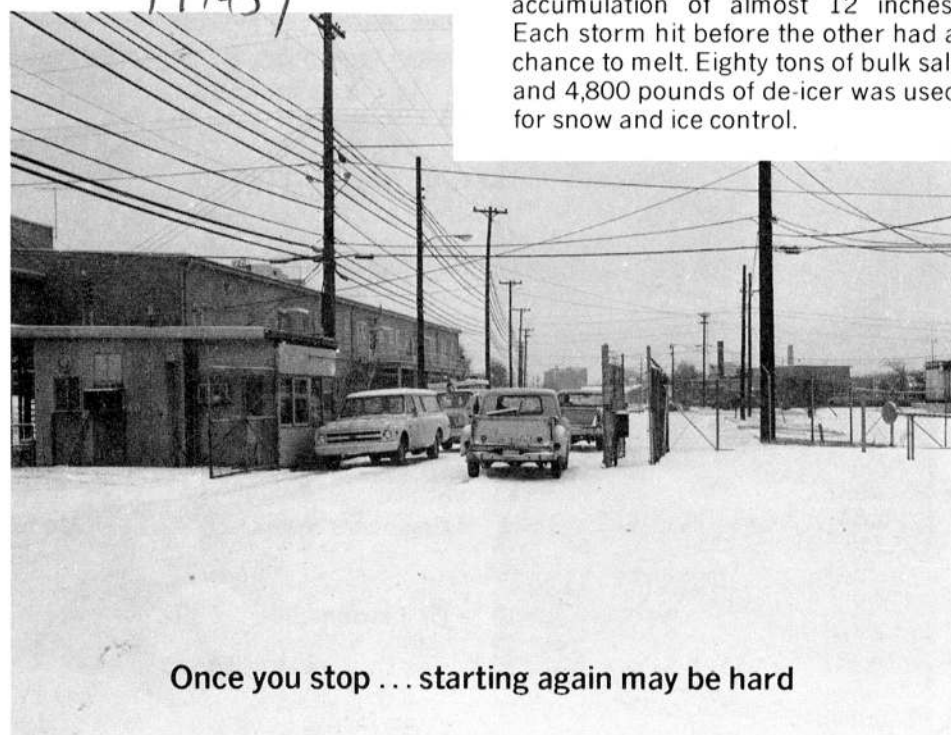
Already this year over 90 tons of salt and three tons of de-icer have been applied and over 1,000 man-hours expended by approximately 80 employees on snow removal work.

Since the roads and portals have been given top priority, the number of accidents, though not eliminated, hopefully has been reduced.

Paducah gets three storms

It took 1,200 man-hours and lots of ice-removing equipment to get the Paducah Plant from "out under." Most of the maintenance work was done by shift workers — already on the owl shift.

The western end of Kentucky caught three major snows, with a total accumulation of almost 12 inches. Each storm hit before the other had a chance to melt. Eighty tons of bulk salt and 4,800 pounds of de-icer was used for snow and ice control.



Once you stop ... starting again may be hard

Gene Kerr assumes duties in Quality Assurance post



Eugene M. Kerr Jr.

Eugene M. Kerr Jr. has been named to the Office of Quality Assurance in the Nuclear Division, according to an announcement from James C. White, manager of the Division's Technical Services.

A native of Pontiac, Mich., he joined Union Carbide in 1970 and worked three years in the Films Packaging Division. He holds a B.S. degree in chemistry from the University of Tennessee, and worked in the Nuclear Division as a co-op student.

He attended the Naval Officer Candidate School from 1971 until 1972. In 1974 he transferred to the Nuclear Division as an analytical development chemist and from September, 1975, until his present appointment served as a technical assistant in the Technical Services Division.

Mrs. Kerr is the former Paula Ferrell and the couple lives at 11020 Sonja Drive, Concord. They have two children, Staci and Travis.

patents granted

To Charles R. Schmitt and James R. DeMonbrun, both of Y-12; and Everett H. Williams, Rust Engineering, for "Flotation Process for Removal of Precipitates from Electrochemical Chromate Reduction Unit."

To Charles B. Pollock and Yair Talmi, both formerly of ORNL, for "Use of Graphitized Carbon Beads for Gas Liquid Chromatography."



Floyd Shook named procedures specialist

Floyd K. Shook has been named a procedures specialist in the Fabrication and Maintenance Division at ORGDP.

A native of Dennis, Miss., Shook joined Union Carbide in 1953, working as a technical reports and specification analyst in the Y-12 Plant. Previously, he worked in auditing for the U.S. Department of Agriculture and the Atomic Energy Commission. He also worked for the Oak Ridge Housing Authority.

Shook transferred to ORGDP in 1975.

He attended Auburn University and the University of Tennessee.

Mrs. Shook is the former Lorene Bagwell, and they live at 101 Underwood Road, Oak Ridge. They have lived in Oak Ridge since 1943. They have a daughter, Glenda Gibbs.



Shook



VALENTINE GREETINGS FROM 1910—Currently greeting visitors to ORNL's Biology Division (Building 9207, Y-12 area) is this display of 43 pre-1920 Valentine cards. The colorful cards were loaned for exhibit by Les Lebo, a recent Biology Division retiree whose collection includes old cards for every holiday: cards from Lebo's collection were also displayed last Thanksgiving and Christmas. Bonita Elmore and Peggy Turner, Biology Division employees who are Building 9207's exhibit coordinators, say the current display will remain until about March 1.

Recent Y-12 promotions

Recent promotions in the Y-12 Plant include naming Thomas W. Dews a physicist in the Development Division; David L. Hueser to an engineer in Environmental Control; Robert E. Mulkey to a senior engineering assistant in Assembly; Esbie R. Rogers Jr., a senior engineering assistant in Product Certification; Doris H. Shrader to an administrative assistant in Support Engineering; and Robert W. Willis to a supervisor in Metal Preparation.

Emerson T. "Skip" Brinkman has been named a foreman in the Y-12 Maintenance Division.

Dews, a native of Cavel, W.Va., has a B.S. degree from Knoxville College and has attended the University of Wisconsin. He joined Union Carbide in 1972.

Mrs. Dews is the former Ann Cureton and the couple lives at 108 Bennett Lane, Oak Ridge. They have a daughter, Elizabeth.

Hueser was born in Radford, Va., and has a B.S. in mechanical engineering from the University of Tennessee. He joined Union Carbide last year.

A member of the American Society of Mechanical Engineers, he lives at 1705 Ridgecrest Drive, Knoxville.

Mulkey, a native of Toccoa, Ga., is a graduate of the Vocational School in Industrial Electronics and is presently attending UT. He joined Union Carbide in 1969.

He lives at 216 Purdue Avenue, Oak Ridge. He has a son, Brian.

Rogers was born in Clanton, Ala., and has been with Union Carbide seven years. He worked with Martin Marietta Corporation before then.

He lives at Route 1, Oakdale, with his wife, the former Carol Locke. They have three children, Cynthia, Bradley and Teresa.

Shrader has been in Y-12's Engineering for 21 years. A native of Lenoir City, he is a graduate of Knoxville Business College and is now attending Roane State Community College.

Her husband, Larry, is in the Metals and Ceramics Division at ORNL. They live at Route 5, Dixie Lee Village, Lenoir City. They have a daughter, Karen.

Willis, a native of Andersonville, attended Draughtons Business College, and joined Union Carbide in 1968. He worked at ORGDP as a laboratory technician and in the Guard Department.

Mrs. Willis is the former Alethia Dowdy and the couple lives on Highland Drive, Clinton. They have five children: Steven, Monique, Robert, Senta and Myron.

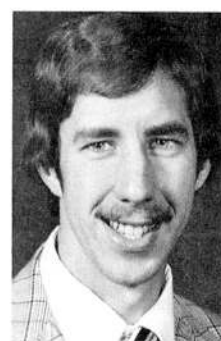
A native of New York City, Brinkman grew up in Oak Ridge.

He joined Union Carbide in 1975.

Mrs. Brinkman is the former Sylvia Boles. They have two sons, Brent and Bart, and live at 120 Andover Circle, Oak Ridge.



Dews



Hueser



Mulkey



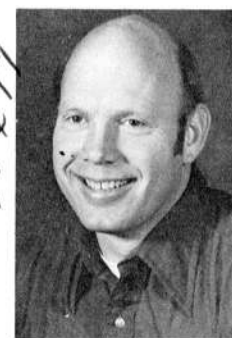
Rogers



Shrader



Willis



Brinkman

**Take stock in America.
Buy U.S. Savings Bonds.**

Nuclear Division personnel assist as Bloodmobile visits

It wasn't too cold recently for almost 450 blood donors to show up, as the Red Cross Bloodmobile came to Oak Ridge in early February. A total of 404 donors gave blood.

The blood is speeded to the Regional Blood Center in Nashville which serves many of the hospital needs in this area, and reaches as far west as Paducah, Ky.

The accompanying photographs show a few Nuclear Division personnel involved in the vital business of blood collecting. Harry C. Francke, who retired from Y-12's Development Division two years ago, is always a regular donor. Francke, who also serves on the Oak Ridge City Council, said he believes people should share their good health. "It's one way of saying 'thanks' for being well yourself."

Evelyn (Mrs. Paul) Bass, whose husband works in Finance and Budget at ORGDP, recalls when Paul had a hemorrhage on the job at Y-12. He was rushed to the hospital and whole blood probably saved his life. "We like to think we are paying back that help," Evelyn stated. "It's the least we can do." Evelyn is seen regularly when the Bloodmobile comes to town, volunteering in whatever capacity is needed.

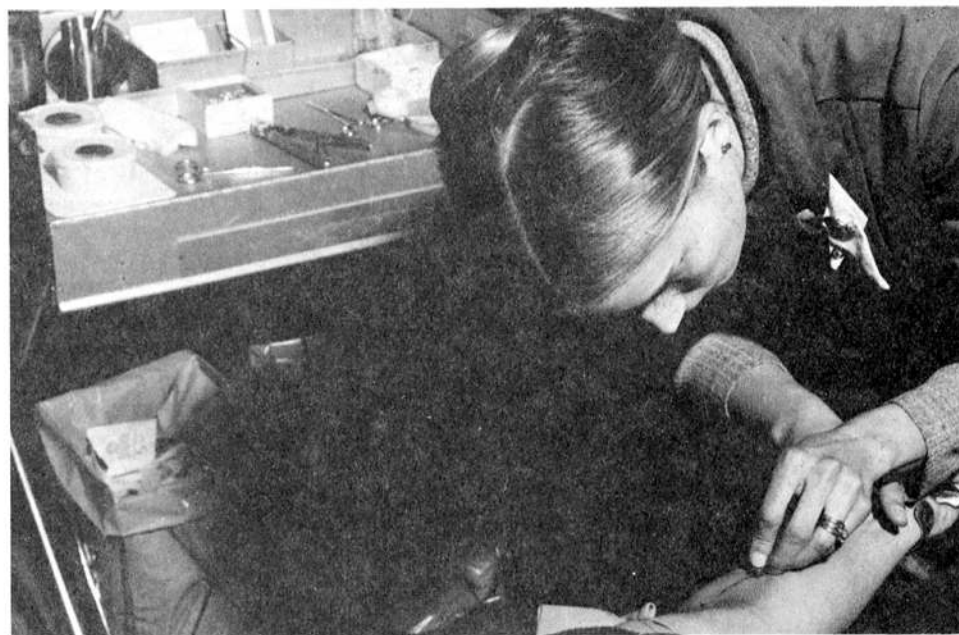
A picture of relaxation was Helen G. Sellin, ORNL Biology Division, caught reading "The Autobiography of Miss Jane Pittman" while she was actually on the donor table. Giving blood actually takes 8-10 minutes, depending on the donor. The entire process, including history-taking, blood-pressure



RETIRED Y-12er—Harry C. Francke reads reasons for giving blood.

measurements, etc., is less than an hour. Much of this time is spent at the refreshment table after the donation, sipping juice or coffee, and sharing experiences with fellow donors.

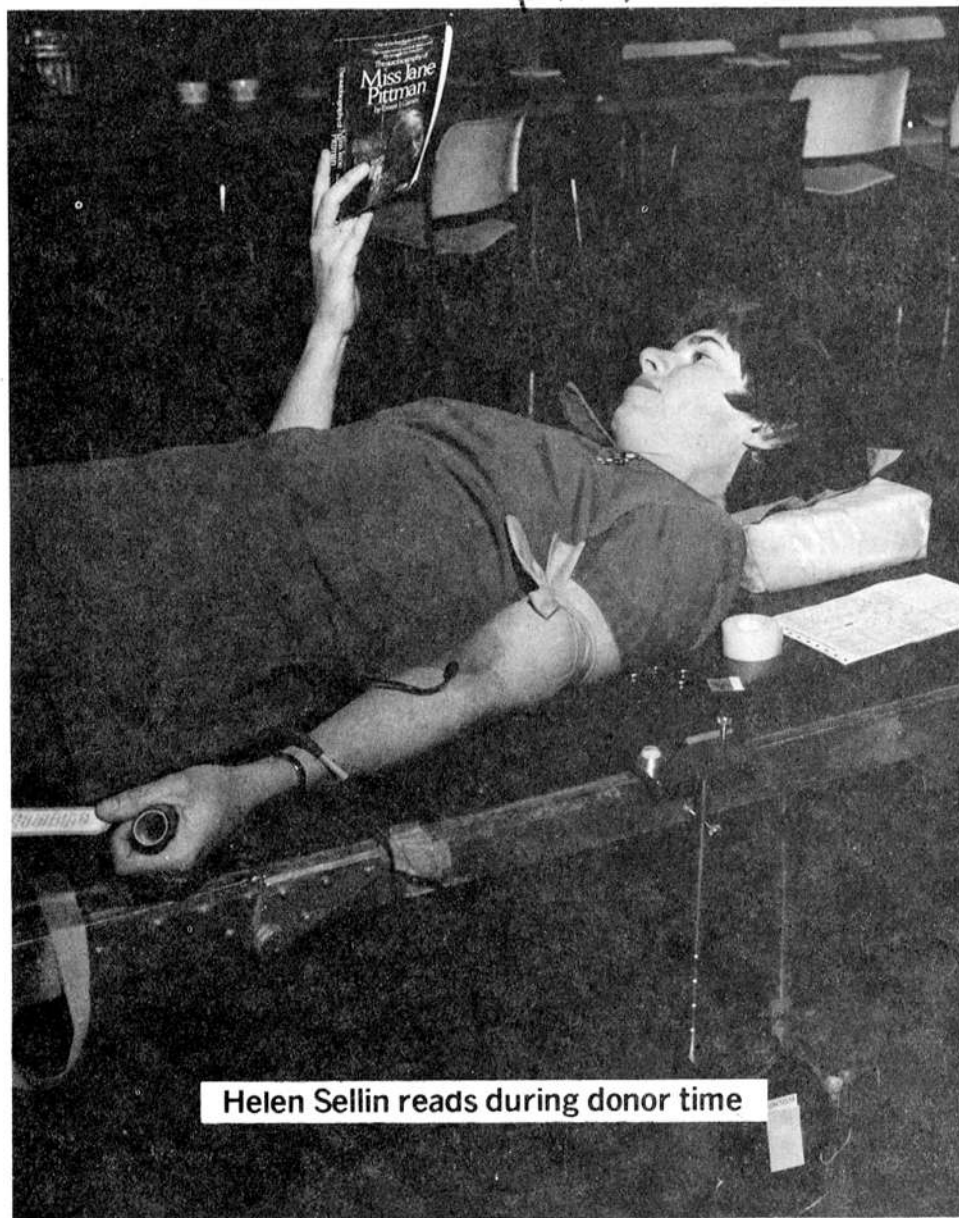
The professionals and volunteers (many of whom are registered nurses and licensed practical nurses) make the visit as pleasant as possible.



And the need for whole human blood seems to increase all the time. Medical advances encompass its usage in many ways other than direct transfusions. Open-heart surgery requires sometimes as many as 30 units of blood just for the surgery alone.

The next Bloodmobile visit is set in Oak Ridge May 25 and 26. Perhaps better weather and the absence of the flu will increase donor participation.

NEEDLE'S EDGE—A registered nurse from Nashville's Regional Blood Center locates a good vein for the production of a unit of blood.



Helen Sellin reads during donor time



Evelyn Bass greets donor at Bloodmobile

safety scoreboard

Time worked without a lost-time accident through February 10:

Paducah	135 Days	1,592,980 Man-Hours
ORGDP	38 Days	1,224,930 Man-Hours
Y-12 Plant	3 Days	108,000 Man-Hours
ORNL	147 Days	2,929,289 Man-Hours

WATtec highlights conference

Engineers' Week looks at energy



TECHNICAL SOCIETIES REPRESENTATIVES—Technical society officers at the Paducah Plant include Henry Fellers, front row from left, chairman AICHE; J.K. Williams, chairman, IEEE; and Gene Sanders, chairman, ISA. In the back row are Clark Conrad, vice chairman AICHE; Dennis Herricks, treasurer, IEEE; and E.P. Larsen, vice chairman ASME.

Hundreds of Nuclear Division employees are participating in activities planned for the annual observance of Engineers' Week, slated for February 21-25. This event is jointly sponsored by local chapters of 20 technical societies in the Knoxville area.

"Energy in the Southeast — Social, Economic and Technical Aspects" will be the theme for this year's conference. The Hyatt Regency Hotel in Knoxville will be the site for most of the week's activities.

Exhibits by local industrial firms will be displayed in the Regency's main lobby. Representatives from the various companies will be on hand to discuss their exhibits with visitors.

Fourth annual WATtec

The technical program will begin Tuesday, February 22, with WATtec. WATtec is a conference and exhibition held annually during Engineers' Week under the same joint sponsorship. Its purpose is to provide a forum so that persons from many disciplines can exchange information on the role of science and technology in issues of national importance.

The energy crisis has been WATtec's main topic of concern since 1974 — when the WATtec conference was originated by local chapters of American Welding Society (AWS) and American Society for Nondestructive Testing (ASNT). WATtec '77 features invited speakers on all aspects of the production, use and conservation of energy.

Program highlights

Tuesday's program will begin with a series of concurrent sessions on various aspects of energy production, including the role of coal in the Southeast. The day's program will also feature an evening reception honoring national presidents of the participating societies.

Wednesday's activities will be kicked off by keynote speaker Alvin M. Weinberg, Director of the Institute for Energy Analysis, ORAU. He will speak on "Can We Do Without Uranium?"

Featured speaker at Wednesday's annual Engineer's Week banquet will be Arkansas Congressman Ray Thornton. Thornton is a member of various energy-related committees, including the House Committee on Science and Technology and the Subcommittee on Energy Research, Development and Demonstration. His

subject will be "Government Reorganization and the Energy Future."

A Public Awareness Symposium will be the highlight for Thursday's program. WATtec holds the symposium as a means for the technical community to provide information to the public on relevant issues of the day. This year's symposium will be oriented toward state and local governmental officials in the Southeastern states who are responsible for actions, plans and policies in the energy field.

Nuclear Division speakers

Many Nuclear Division employees will be speakers during Engineers' Week. On Tuesday, the individual societies will present programs in parallel sessions.

Speakers from ORNL include: Eric Hirst at the Public Awareness Symposium, Art Fraas on fluidized bed combustion, F. W. Wiffin on the TOKAMAK, R. T. King on coal utilization, J. C. Griess Jr. on geothermal energy, W. R. Martin on energy systems materials, W. D. Burch on the LMFBF fuel cycle, M. J. Feldman on engineering systems in the LMFBF, G. M. Slaughter on commercial energy systems, R. W. McClung on non-destructive testing and C. R. Richmond on environmental aspects of the LMFBF.

The topic "Geological Disposal of Nuclear waste" will be discussed at a Tuesday session by Clayton D. Zerby, director of the Nuclear Division's Office of Waste Isolation.

Paducah plans banquet

Paducah employees are also participating in Engineers' Week. The Joint Technical Societies of Western Kentucky will hold their annual dinner meeting during the week of Washington's birthday, which coincides with Engineers' Week. During this meeting, the Society, whose purpose is to promote continuing programs at area colleges, will recognize engineers from our first president's day to the present.

Of the 12 local Society chairmen, five office-holders are Nuclear Division employees from PGDP. (See picture).

Many Nuclear Division employees have put much time and effort into the

(Please see page 8)

Jim Sykes named to head Y-12's Finance, Materials

The appointment of James B. Sykes as superintendent of the Oak Ridge Y-12 Plant's Materials and Services Division has been announced by Jack M. Case, Plant Manager. He succeeds Edward A. Pluhar, who has retired.

In his new position, Sykes is responsible for administration of the Materials and the Office Service Departments, and will report to W. J. Yaggi, General Plant Services Manager.

A native of Houston County, Tenn., Sykes joined the Nuclear Division in 1945 as a training instructor at ORGDP. He received his bachelor's degree in education from Western Carolina University in Cullowhee, N.C., and served as high school principal in Houston and Williamson Counties in Tennessee before coming to Oak Ridge.

In 1954 Sykes was named supervisor and plant classification officer in Y-12's Plant Records Department. He became head of the Office Services Department at Y-12 in 1963 and in 1965 was appointed head of the Materials Department, the post he held until his present promotion.

Sykes and his wife, Mary Greene Sykes, live on Paint Rock Ferry Road in Kingston. They have two sons, Randy and Jimmy.



Monday holiday

Monday, February 21, is an official holiday for Nuclear Division employees. Actually, February 22 is George Washington's birthday, but we now observe the birthday of presidents... commemorating both his and Abraham Lincoln's birthday.

No employee is required to be at work unless his/her presence is required because of continuous operation or plant security.

retirements



Arville E. May
Y-12 Special Services
26 years service



Charles J. Barton Sr.
Environmental Sciences
ORNL
28 years service



Charles F. Jones
Y-12 Maintenance
25 years service



Vaughn L. Thomas
ORGDP Engineering
31 years service



Woodford Terry
ORGDP Engineering
29 years service



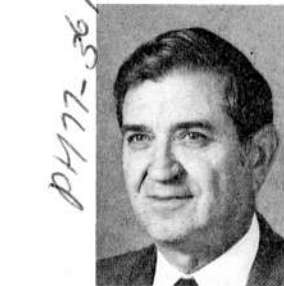
Clyde A. Wilson
ORGDP Operations
33 years service



Vilmer H. Kiplinger
ORGDP Engineering
33 years service



James O. Howard
Y-12 Chemical Services
26 years service



Tommy L. Matthews
ORGDP Fabrication and
Maintenance
32 years service

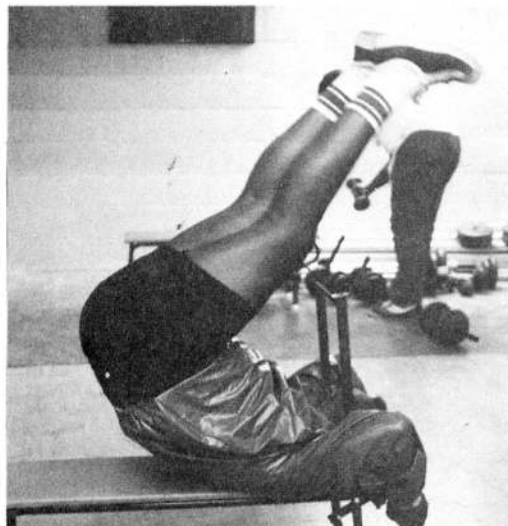
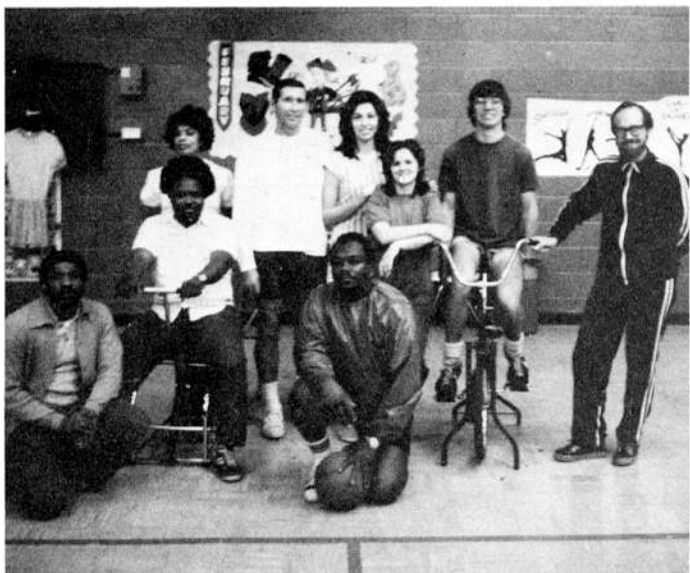
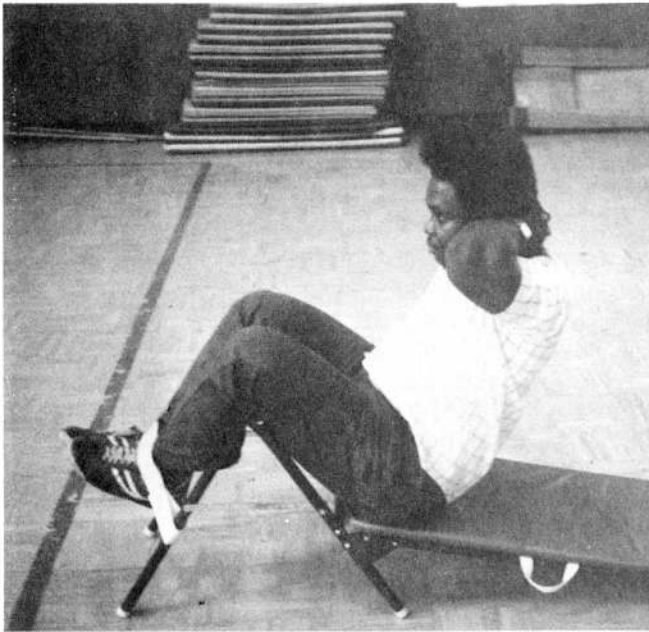


William C. Myers
Security, Plant Protection
ORGDP
29 years service

Also:

Robert L. Cross
Y-12 Maintenance
17 years service

Robert L. Ruffin
Y-12 Maintenance
32 years service



ATTENTION, KNOX BOWLERS

The Recreation Department is forming a mixed bowling league at Western Plaza Bowling Lanes, Knoxville. Plans are to begin in April or May. Interested parties should contact the Recreation Office, extension 3-5833, by March 25. It takes two men and two women to form a mixed team . . . but you may call in pairs, teams, bunches or singletons.

ORGDP bowling . . .

The All Steers stretch their February night league, above the City Slickers by 11 points. Their 3108 handicap series stands league high, too.

The Wednesday League sees the Hi-Rollers and Amps tied for the lead, with the Planners and Losers breathing close by. Wayne Bryan set them afire recently with a 246 game; Jim Fletcher rolled a 654 series.

ORNL bowling . . .

The Ten Pins move into the cat-bird seat in the A League, only a couple in front of the Zots. The Zots climbed after rolling a 3005 series. Their Fadnek pushed a 685 on the boards recently.

The Timber Wolves grabbed the lead in the C League's second half, as the Remkeys rattled the alleys with a 3021 series.

Y-12 bowling . . .

The Mini-Strikes keep a one-point high in the C League. Gus Braden's 258 game is still high, with Bill Sise's 254 and Harold Zang's 248 second and third.

The Classic League sees a tie between the All Stars and Four plus One . . . as they downed the Mets and Smelters consecutively. High games thus far are Ray Winnie's 262, Bill Ladd's 253 and Harold Zang's 252.

The Y-12 Mixed League lead still belongs to the Hits & Misses, as the Friskies stay within a hair's breadth of first slot.

wanted



Y-12 PLANT

RIDE from Blair Road and Poplar Creek Road, to Central Portal, C Shift. Dot Sheffield, plant phone 3-7272, home phone Oliver Springs 435-2265.

RIDE from West Haven area, Knoxville, to North or Central Portal, straight day. E. F. Greer, plant phone 3-7379, home phone Knoxville 523-1715.

ORGDP

Join CAR POOL from Clinton area to Portal 3, straight day. S. C. Nelson, plant extension 3-9402, home phone Lake City 426-2049.

RIDE or will join car pool from Bearden section, to Portal 2, 7:45 a.m.-4:15 p.m. shift. Harriett Dunn, plant phone 3-3311, home phone Knoxville 584-7010.

VAN POOL members from Cumberland Estates, Knoxville, to any portal, 7:45 a.m.-4:15 p.m. shift. Steve Shipley, plant phone 3-3661, home phone Knoxville 588-8660.

ORNL

CAR POOL members from area of West Outer, Waddell, Pennsylvania or Hillside, Oak Ridge, to East Portal, 8:15 to 4:45. Tom Burnett, plant phone 3-6939; home phone 483-1975.

RIDERS or JOIN CAR POOL from Walker Springs Road area, Knoxville, to East Portal, 8 to 4:30. Karen Cromer, plant phone 3-6266; home phone 693-6917.

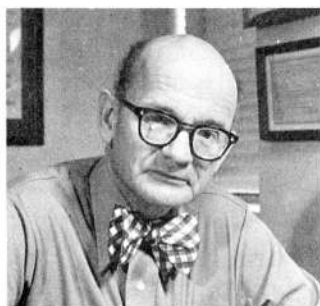
RIDERS to join Knoxville Commuter Van Pool from West Knoxville, I-40 Papermill Road exit area or Walker Springs Road exit. R. L. Pearson, plant phone 3-1875; home phone 588-9949.

JOIN CAR POOL from North Broadway section, Knoxville, to main portal, straight day. Scott Humphries, plant phone 3-6466, home phone Knoxville 689-3217.



VOLLEYBALLERS—They call themselves the "Over-the-Hill Gang." In the front row, from left, are Scott Davis, Jack Cornett, Tom Verner and Powell Prewett. In the rear are Jerry Davis, Baldy Clayton, Lou Fitzgerald and Ron Sharp. Not pictured are Ted Burger, Larry Finch, Paul Hatmaker, George Reece and Jim Thompson.

PHYSICAL FITNESS—Carbide's Physical Fitness Program, set Mondays and Wednesdays at the Norwood Junior High School, brings out physical fitness fans, as the above shots indicate. It's fun, too, they all say. The gym is available on Monday from 7 to 9:15 p.m., and again on Wednesday from 7 to 8:45 p.m. Come on out and join the fun, it's free, and it keeps you physically fit.



Kidney transplant A gift of life

by T. A. Lincoln, M.D.

(Editor's Note: Dr. Lincoln alternates his regular column with "The Medicine Chest," where he answers questions from employees concerning health in general. Questions are handled in strict confidence, as they are handled in our Question Box. Just address your question to "Medicine Chest," NUCLEAR DIVISION NEWS, Building 9704-2, Stop 20, Y-12, or call the news editor in your plant, and give him or her your question on the telephone.)

Do you realize that you hold a life-or-death decision in your pocket? On the back of your driver's license appear the words, "Organ Donor ____ Yes ____ No". If you have circled "Yes" and are critically injured in an accident or have a cerebrovascular accident (stroke) and later die, your kidney, when transplanted, can live on and give life to a victim of kidney failure.

Each year more than 60,000 people die from kidney failure. Many of them have widespread systemic diseases or are too old and therefore are not suitable candidates for a transplant. Nevertheless, thousands are good candidates and could be returned to health. It has been estimated that if only one percent of the population carried properly executed donor cards, transplants could be made to all patients waiting for them.

Success story

The success story of kidney transplantation needs to be told over and over again because too few people believe it. There are approximately 9,000 people alive with functioning kidney transplants. The longest transplant survival is a Boston recipient who received a kidney from a brother in 1958.

The Twelfth Report of the Human Renal Transplant Registry published in August, 1975, reveals the strengths and weaknesses of this procedure. When the donor was a brother or sister, over 60 percent of the transplanted kidneys were still functioning after five years. When the donor was a parent, about 50 percent of the kidneys lasted five years or more. When the donor was an unrelated cadaver, 35 percent lasted five years or more. Presently, about 70 percent of donor kidneys come from unrelated cadavers.

When one looks at patient survival rather than just the survival of a specific transplanted kidney, the outcome is much better. The reason is that sometimes a second, or even third kidney has to be later transplanted. Some patients, who are now doing well, have required multiple transplants.

All things considered, it is now believed that when patients survive the transplant procedure and the postoperative period, 90 per cent will return to work. There will be later graft failures and an increased death rate due to malignancies and cardiovascular complications, but the

overall five-year survival rate is now about 60 percent and improving. When only related donors are considered, this rate is higher, but in many families finding a suitable relative to donate is not possible. A complicated tissue typing procedure is now performed to find as perfect a match as possible.

Consider the alternatives: certain death—or dependency on an artificial kidney (dialysis). Many of these people can be kept alive, but it costs \$25,000-\$30,000 per year when dialysis is performed at a hospital. When done at home, it requires intelligent help. Many patients do not have someone who can receive six weeks intensive training at a distant university center, and then spend five to eight hours dialyzing them three times a week. The effort required, the many fatal complications, and the seeming hopelessness make dialysis a highly unsatisfactory alternative to transplantation.

Legality of donor card

There have been many questions about the legality of the organ donor card. Tennessee was the first state to include an organ donor card on the back of the driver's license. Because there is poor understanding about how this card works, few people adequately fill it out.

The Uniform Anatomical Gift Act was approved in Tennessee on March 25, 1969. At first, organ donation could only be done by writing a will or by carrying a special organ donor card. Effective July 1, 1972, the Tennessee code was amended so the organ donor card could be printed on the back of the driver's license.

It was the opinion of the Attorney General's office in May of 1975 that organ donation via a valid Tennessee driver's license was just as effective as any other document. The back of the Tennessee driver's license—when dated, signed and witnessed by two individuals—is a legal document.

Even though the card may have been properly filled out, when a potential donor is brought to a hospital, the nearest relative is contacted and approval confirmed. For this reason, the best witnesses are the spouse and a parent or child over 18. It is also desirable to indicate what organs may be removed for donation. The greatest need is for kidneys and corneas from the eyes.

Many people have circled the "Yes" after "Organ Donor" on the back of

Morrison appointed to OWI position

The appointment of James M. Morrison as manager of planning and analysis for the Office of Waste Isolation has been announced by Clayton D. Zerby, OWI director. In his new position Morrison will be responsible for managing OWI planning activities.

Morrison, who joined the Nuclear Division in 1971, received his



Morrison

bachelor's degree from Syracuse University in 1954 and a master's degree in chemical engineering from Syracuse in 1956.

Before joining Union Carbide, he was associated with the Savannah River Plant in Aiken, S.C., a facility of Du Pont's Atomic Energy Division. In 1967 he was assigned as Du Pont's representative to the AEC's Combined Operations Planning group in Oak Ridge.

Morrison joined the Nuclear Division in the production reactor/feed materials group. Most recently he was manager of the Strategic Planning Department, Operations Analysis and Planning Division, at the Oak Ridge Gaseous Diffusion Plant.

Morrison and his wife, Olive, live at 949 West Outer Drive, Oak Ridge. He is a member of the American Nuclear Society and the American Institute of Chemical Engineers.



To Karl J. Notz Jr., ORNL, for "Process for Loading Weak-Acid Ion Exchange Resin with Uranium."

their licenses, but have failed to have two witnesses sign. The circled "Yes," even though unwitnessed, indicates a desire to donate; and if the closest living relative can be found and approves, the donation could still proceed after death. This method is much more difficult, however, since the grief and shock which accompany the impending loss of a relative is often so great that clear thought is not possible. For purposes of transplantation, a kidney should be removed within one hour after death. Thoughtful planning before the crisis is obviously desirable.

Death has been legally defined in the state of Tennessee as: "... a human body, with irreversible cessation of total brain function, according to the usual and customary standards of medical practice, shall be considered dead." The heart may still be beating feebly and the kidneys still alive, but the body is considered dead. The removal of the kidney can and must proceed if it is to remain useful for transplantation.

Tennessee has more than 160 persons waiting for a transplant. Your completion of your driver's license donor card could save someone else's life after yours is over. Think about it for a few minutes. What good is your flesh to you or your family after your death? Why not keep a little bit of it still working to keep someone alive and useful?

Nettesheim named to NCI clearinghouse

Paul Nettesheim, M.D., a member of Oak Ridge National Laboratory's Biology Division, has been named to the National Cancer Institute's newly established Clearinghouse on Environmental Carcinogens.

The 28-member committee, drawn from academic, medical and scientific



Nettesheim

research institutions, as well as from industry, organized labor and public interest groups, will provide advice and recommendations for use in the Institute's carcinogen bioassay program. The members were chosen on the basis of their knowledge and experience in the many aspects of cancer causation as related to environmental chemicals.

Specifically, the Clearinghouse will consider the following: chemicals that should be tested in animals to determine cancer-causing potential; appropriate experimental conditions for the conduct of tests; the significance of test results; and the risk to humans from these chemicals found carcinogenic. In addition, the Clearinghouse will respond to requests for advice on environmental causes of cancer from Congress, the National Cancer Advisory Board and other federal agencies.

Dr. Nettesheim, a member of the Biology Division staff since 1963, is a group leader of the respiratory carcinogenesis program and supervises studies of the biological effects of tobacco smoke and various chemical pollutants. He is a lecturer at the University of Tennessee-Oak Ridge Graduate School of Biomedical Sciences.

Lynn Carpenter named to head Special Services

Lynn J. Carpenter has been named head of the Special Services Department in ORGDP's Technical Services Division. She will continue her duties as manager of the Industrial Participation Program.

Carpenter joined Union Carbide in 1972. A native of Atlanta, she attended Georgia Tech and has a B.S. in chemistry and an M.S. in industrial engineering from the Uni-



Carpenter

versity of Tennessee. She came with Union Carbide in Y-12's Development Division, later transferring to ORGDP's Separations Systems. She has also served as a technical recruiter.

Carpenter and her husband, Donald, live at 120 Greenbriar Lane, Oak Ridge. He is in Y-12's Laboratory Development. She has been chairman of the Oak Ridge Human Resources Board and is a former member of the board of the Community Relations Council.

question box

ANSWER: Over a period of several weeks, an unidentified woman employee conducted an independent appraisal, and after examining a number of the restrooms in various areas of both ORNL and Y-12, could find no significant differences. Conditions varied within each installation as to aesthetics; i.e., lighting, freshness of paint, heating and cooling, etc. However, in regard to personal hygiene and sanitation accommodations, we feel that the two installations are equally equipped.

Custodial services

Question: Why do the executive offices in Y-12 and the ORNL installations get daily custodial service while in the production areas it is every-other-day service and many times less often?

Answer: All areas at ORNL receive the same custodial treatment. Limited Y-12 budgets for the past two years have required critical reviews of all overhead costs. In April 1975 custodial services were reduced throughout the plant where this was practical. Considering the frequent visits to executive offices by outsiders, it was decided that daily custodial service should be continued there.

Business trip priorities

QUESTION: What are the criteria in selecting who goes on a business trip representing the ORNL Library? Who is responsible in determining if there is a misuse in these trips? Would this be a problem for our affirmative action representative?

ANSWER: The responsibility for approving official business travel in the ORNL Library rests with the Department Head, subject to the approval of the Division Director. This method of approval is applicable to all divisions at ORNL. Without more specifics concerning this matter we cannot comment on possible misuse of trips or affirmative action implications. We would suggest that you take the matter up with the responsible manager involved.

Promoting older employees

QUESTION: Recent editions of the **Nuclear Division News** have included long-term older employees being promoted. Why doesn't the Purchasing Division reward its older, more experienced employees in this manner?

ANSWER: Employees in the Purchasing Division are promoted on the basis of job knowledge and past performance, with due consideration given to company service credit. The exempt first-level buyers average 14 years of company service; the second-level buyers average 24 years of service; and the highest level buyers average 23 years of service.

Nonexempt employees in job level 2 average 2 years of service; those in job level 3 average 15 years of service; and personnel in job levels 4 and 5 average 23 years of company service.

next issue

The next issue will be dated **March 3**. The deadline is **February 23**.

planning and sponsoring of the conference. The following list names just a few of these WATtec coordinators:

Fred R. Mynatt, Technical Program, ORNL; William O. Harms, Executive Committee, ORNL; Fred D. Mundt, Finance Chairman, ORGDP; Paul F. Boyer, Exhibits Chairman, Y-12; Richard C. Green, Arrangements, ORGDP; M. Jayne Ackisson, Registration, ORNL; Pete Patriarca, Sponsors' Committee, ORNL; Robert J. Gray, Sponsors' Committee, ORNL; J. P. Blakely, Sponsors' Committee, ORNL; Robert Stepp, Sponsors' Committee, ORGDP; and William B. Snyder, Sponsors' Committee, Y-12.

Session Chairmen include: Bill Fulkerson, Y-12; P. Stephen Cates, ORGDP; Jim Weir, ORNL; John W. Koger, Y-12; Domenic A. Canonico, ORNL; J. A. Smith, ORNL; and Donald B. Trauger, ORNL.

Bender to chair NRC's committee on safeguards



Myer Bender

Myer Bender, director of ORNL Engineering for the Nuclear Division, has been elected as the 1977 Chairman for the Nuclear Regulatory Commission's Advisory Committee on Reactor Safeguards (ACRS).

The ACRS was established in 1957 by the Congress to advise the former Atomic Energy Commission, and subsequently the NRC, on the safety aspects of nuclear facilities and the adequacy of proposed reactor safety standards.

Bender, a member of the Committee since September, 1972, has been with the Nuclear Division since 1946.

Energy Conditions subject of report

(Continued from page 1)

ners and policy makers who must determine the future roles of the Southern states, individually and collectively, in contributing to the nation's overall economic growth and development.

The report notes that regional variations in energy consumption and production have received increased attention by researchers, particularly because of the need to estimate the effectiveness of various proposed conservation measures.

The 14 states covered in the study are: Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia.

anniversaries

ORNL

35 YEARS



Ellison H. Taylor

Ellison H. Taylor, a senior research staff member in the Chemistry Division, joined the Nuclear Division on February 24, 1942, when working on the Manhattan Project.

He has served many positions in the Chemistry Division, including division director from 1954 to 1974. Before becoming division director, Taylor was the associate Laboratory director for three years under Alvin M. Weinberg.

Taylor studied chemistry at Cornell and Princeton, where he received his B.S. and Ph.D. degrees, respectively.

He and his wife, Ruth, live at 143 Orchard Lane in Oak Ridge. They have two sons, Lawrence and William.

30 YEARS

Jesse Miniard, Instrumentation and Controls Division; Clara L. Cawrse, Information Division; Henry V. Owens, Finance and Materials Division; Earl W. Sparks, Instrumentation and Controls Division; and David E. Lavalley, Analytical Chemistry Division.

25 YEARS

William G. Tatum, Cleo C. Hendrix Jr., Herman R. Queener, Gerald Goldberg, Perry S. Gouge, Clifford A. Burchsted, Hoke S. Culbertson and James E. Brooks.

20 YEARS

Barbara L. Rudd and Marion M. Chiles.

ORGDP

30 YEARS

Horace G. Stanley, Management Systems Staff; Virginia M. Brown, Uranium Control Department; Claude B. Stephens, Instrument Fabrication Department; and Helen J. Hamrick, Purchasing Division Administration.

25 YEARS

Paul G. Bowman, Richard W. Nichols, James E. Keene, Arthur Hopson, Howard L. Fore and Luther H. Hampson Jr.

20 YEARS

Robert E. Graham.

PADUCAH

25 YEARS

Billy C. Prince, William E. Adams, Neal E. Whitt, James T. Jones, James R. Harrison, Robert E. Lents, Herbert W. Handley, George W. Faughn, Thurman L. Vinson, James M. Cloyes, Parvin H. Walker, Lucian C. Turk, Billy S. Feezor, James A. Galloway, James V. Mitchell, Thomas E. McNeely and Johnny W. Holland.

Y-12 PLANT

30 YEARS

Emmett L. Moore, Fire Department; Odeva Mack, Graphite Shop; and George M. Del Cour, General Shops.

25 YEARS

Neal Dow, Daniel H. Palkowski, Olen C. Hutchison, Ernest T. Ely Jr., Everett L. Halstead, Robert E. Griffith, John Lay Jr. and Otis D. Miller.

division death

Robert B. Evans III, a developmental staff member in ORNL's Chemical Technology Division, died February 8 at his home. He had been with the Nuclear Division since 1957.



Mr. Evans

Mr. Evans is survived by his wife, Alice Claire Evans, 417 Elkmont Road, Route 4, Concord; daughters; Mrs. Robert L. (Claire) Harrison III, Atlanta; and Mrs. Robert Buckner Evans; and five grandchildren.

The family requests that memorials be made to the Heart Fund.

Funeral services were held at St. John's Episcopal Church, with burial in Highland Memorial Cemetery.



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